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pitman

[DES ENG] A device similar to a casing, but used on a pipe to grasp it and hoisting or suspension. ('pīp, kās)

[CIV ENG] A buried pipe for carrying a source below ground level. ('pīp, kār)

[DES ENG] A hand tool consisting of a device with three cutting wheels forced inward by screw pressure to cut as the tool is rotated around the pipe. ('pīp, kād-ər)

[METER] A variable-head meter measuring flow around the bend in a pipe. ('bō, mēd-ər)

[ENG] A technician who fits, threads, and repairs pipes in a pipework system. ('l-ər)

[ENG] A piece, such as coupling, nipples, tees, and elbows for connecting pipes. ('pīp, fīd-īg)

[ENG] Conveyance of fluids in closed pipes. ('pīp, flō)

[ENG] The placing of pipe into a trench, as with buried pipelines for chemicals. ('pīp, lā-īg)

[ENG] A line of pipe connected to other control devices, for conducting gases, or finely divided solids. ('pīp, lā-īg)

[CIV ENG] A steel pipe 6-30 inches in diameter, usually of concrete and used for underpinning. ('pīp, lā-īg)

[ENG] The path followed by a pipe. ('pīp, rān)

[ENG] Rust and corrosion products on the inner surfaces of pipes, which are able to transfer heat and to increase drop for flowing fluids. ('pīp, rān)

[ENG] A hollow, cylindrical form in a concrete wall at the end where a pipe is to penetrate in order to flow of concrete into the opening. ('pīp, rān)

[CHEM ENG] A petroleum-refining process in which heat is applied to the oil while it is pumped through a coil or pipe, and the oil then running to a fractionator for continuous removal of overhead vapors. ('pīp, stīl)

[ENG] A small threaded hole in the wall of a pipe; used for injecting contents, or connection for a pressure-drop-measuring device. ('pīp, stīl)

[DES ENG] A T-shaped pipe with two outlets, one at 90° to the connection. ('pīp, tē)

[DES ENG] Most commonly used on pipes and tubes, characterized by roots and roots cut with a 30° angle (about 1.9 centimeters per foot). Also known as taper pipe. ('pīp, tē)

[pipe-thread protector] See thread protector. ('pīp, θred prə, tek-tər)

[pipe tongs] [ENG] Heavy tongs that are hung on a cable and used for screwing pipe and tool joints. ('pīp, tŋz)

[pipe train] [ENG] In the extrusion of plastic pipe, the entire equipment assembly used to fabricate the pipe (such as the extruder, die, cooling bath, haul-off, and cutter). ('pīp, trān)

[pipework] See piping. ('pīp, wɜrk)

[pipe wrench] [DES ENG] A tool designed to grip and turn a pipe or rod about its axis in one direction only. ('pīp, rɛnʃ)

[piping] [ENG] A system of pipes provided to carry a fluid. Also known as pipework. ('pīp-ŋg)

[piston] [ENG] See force plug. [MECH ENG] A sliding metal cylinder that reciprocates in a tubular housing, either moving against or moved by fluid pressure. ('pīs-tən)

[piston blower] [MECH ENG] A piston-operated, positive-displacement air compressor used for stationary, automobile, and marine duty. ('pīs-tən, blō-ər)

[piston corer] [MECH ENG] A steel tube which is driven into the sediment by a free fall and by a lead attached to the upper end, and which is capable of recovering undistorted vertical sections of sediment. ('pīs-tən, kōr-ər)

[piston displacement] [MECH ENG] The volume which a piston in a cylinder displaces in a single stroke, equal to the distance the piston travels times the internal cross section of the cylinder. ('pīs-tən dī, splas-mənt)

[piston drill] [MECH ENG] A heavy percussion-type rock drill mounted either on a horizontal bar or on a short horizontal arm fastened to a vertical column; drills holes to 6 inches (15 centimeters) in diameter. Also known as reciprocating drill. ('pīs-tən, drīl)

[piston engine] [MECH ENG] A type of engine characterized by reciprocating motion of pistons in a cylinder. Also known as displacement engine; reciprocating engine. ('pīs-tən, ɛn-ʃən)

[piston gage] See free-piston gage. ('pīs-tən, gāj)

[piston head] [MECH ENG] That part of a piston above the top ring. ('pīs-tən, hed)

[piston meter] [ENG] A variable-area, constant-area fluid-flow meter in which the position of a piston, moved by the buoyant force of the fluid, indicates the flow rate. Also known as piston-type area meter. ('pīs-tən, mēd-ər)

[piston phone] [ENG ACOUS] A small chamber connected with a reciprocating piston having a variable displacement and used to establish a sound pressure in the chamber, as for microphones. ('pīs-tən, fōn)

[pin] [MECH ENG] A cylindrical pin that connects the connecting rod to the piston. Also known as wrist pin. ('pīs-tən, pīn)

[piston pump] [MECH ENG] A pump in which motion and pressure are applied to the fluid by a reciprocating piston in a cylinder. Also known as reciprocating pump. ('pīs-tən, pʌmp)

[piston ring] [DES ENG] A sealing ring fitted

around a piston and extending to the cylinder wall to prevent leakage. Also known as packing ring. ('pīs-tən, rīŋ)

[piston rod] [MECH ENG] The rod which is connected to the piston, and moves or is moved by the piston. ('pīs-tən, rōd)

[piston skirt] [MECH ENG] That part of a piston below the piston pin bore. ('pīs-tən, skɜrt)

[piston speed] [MECH ENG] The total distance a piston travels in a given time; usually expressed in feet per minute. ('pīs-tən, spēd)

[piston-type area meter] See piston meter. ('pīs-tən, tīp 'er-ē-ə, mēd-ər)

[piston valve] [MECH ENG] A cylindrical type of steam engine slide valve for admission and exhaust of steam. ('pīs-tən, vɒlv)

[piston viscometer] [ENG] A device for the measurement of viscosity by the timed fall of a piston through the liquid being tested. ('pīs-tən vī'skām-əd-ər)

[pitch] [DES ENG] The distance between similar elements arranged in a pattern or between two points of a mechanical part, as the distance between the peaks of two successive grooves on a disk recording or on a screw. [MECH] 1. Of an aerospace vehicle, an angular displacement about an axis parallel to the lateral axis of the vehicle. 2. The rising and falling motion of the bow of a ship or the tail of an airplane as the craft oscillates about a transverse axis. ('pīʃ)

[pitch acceleration] [MECH] The angular acceleration of an aircraft or missile about its lateral, or Y, axis. ('pīʃ ik, sel-ə, rā-shən)

[pitch attitude] [MECH] The attitude of an aircraft, rocket, or other flying vehicle, referred to the relationship between the longitudinal body axis and a chosen reference line or plane as seen from the side. ('pīʃ, ad-ə, tūd)

[pitch axis] [MECH] A lateral axis through an aircraft, missile, or similar body, about which the body pitches. Also known as pitching axis. ('pīʃ, ak-səs)

[pitch circle] [DES ENG] In toothed gears, an imaginary circle concentric with the gear axis which is defined at the thickest point on the teeth and along which the tooth pitch is measured. ('pīʃ, sər-kəl)

[pitch cone] [DES ENG] A cone representing the pitch surface of a bevel gear. ('pīʃ, kōn)

[pitch cylinder] [DES ENG] A cylinder representing the pitch surface of a spur gear. ('pīʃ, sīl-ə, ɒndər)

[pitch diameter] [DES ENG] The diameter of the pitch circle of a gear. ('pīʃ dī, am-əd-ər)

[pitched roof] [BUILD] 1. A roof that has one or more surfaces with a slope greater than 10°. 2. A roof that has two slopes meeting at a central ridge. ('pīʃt 'rūf)

[pitching axis] See pitch axis. ('pīʃ-ŋg, ak-səs)

[pitching moment] [MECH] A moment about a lateral axis of an aircraft, rocket, or airfoil. ('pīʃ-ŋg, mō-mənt)

[pitch line] See cam profile. ('pīʃ, līn)

[pitman] [ENG] 1. A worker in or near a pit, as in a quarry, mine, garage, or foundry. 2. On a

vacuum pencil

vacuum pencil [ENG] A pencil-like length of tubing connected to a small vacuum pump, for picking up semiconductor slices or chips during fabrication of solid-state devices. { 'vak-yəm ,pen-səl }

vacuum pump [MECH ENG] A compressor for exhausting air and noncondensable gases from a space that is to be maintained at subatmospheric pressure. { 'vak-yəm ,pʌmp }

vacuum relief valve [ENG] A pressure relief device which is designed to allow fluid to enter a pressure vessel in order to avoid extreme internal vacuum. { 'vak-yəm ri'leɪf ,vɒlv }

vacuum shelf dryer [ENG] A type of indirect batch dryer which generally consists of a vacuum-tight cubical or cylindrical chamber of cast iron or steel plate, heated supporting shelves inside the chamber, a vacuum source, and a condenser; used extensively for drying pharmaceuticals, temperature-sensitive or easily oxidizable materials, and small batches of high-cost products where any product loss must be avoided. { 'vak-yəm 'shelf,dri-ər }

vacuum support [MECH ENG] That portion of a rupture disk device which prevents deformation of the disk resulting from vacuum or rapid pressure change. { 'vak-yəm sə,pɔrt }

vacuum-tube voltmeter [ENG] Any of several types of instrument in which vacuum tubes, acting as amplifiers or rectifiers, are used in circuits for the measurement of alternating-current or direct-current voltage. Abbreviated VTVM. Also known as tube voltmeter. { 'vak-yəm 'tʉb ,vɒlt,mēd-ər }

vacuum-type insulation [CHEM ENG] Highly reflective double-wall structure with high vacuum between the walls; used as insulation for cryogenic systems; Dewar flasks have vacuum-type insulation. { 'vak-yəm ,tʉp in-sə'leɪ-shən }

VAD See vapor-phase axial deposition. { 'væd ər ,væ,ə'deɪ }

valley [BUILD] An inside angle formed where two sloping sides intersect. { 'væl-ē }

valley rafter [BUILD] A part of the roof frame that extends diagonally from an inside corner plate to the ridge board at the intersection of two roof surfaces. { 'væl-ē ,raf-tər }

valley roof [BUILD] A pitched roof with one or more valleys. { 'væl-ē ,rʉf }

value analysis See value engineering. { 'væl-yü ə,næl-ə'səs }

value control See value engineering. { 'væl-yü kən,troʊl }

value engineering [IND ENG] The systematic application of recognized techniques which identify the function of a product or service, and provide the necessary function reliably at lowest overall cost. Also known as value analysis; value control. { 'væl-yü ,en-jə,nir-ig }

value theory [SYS ENG] A concept normally associated with decision theory; it strives to evaluate relative utilities of simple and mixed parameters which can be used to describe outcomes. { 'væl-yü ,thē-ə-rē }

valve See electron tube. [MECH ENG] A device

used to regulate the flow of fluids in piping systems and machinery. { 'vɒlv }

valve follower [MECH ENG] A linkage between the cam and the push rod of a valve train. { 'vɒlv ,fɒl-ə-wər }

valve guide [MECH ENG] A channel which supports the stem of a poppet valve for maintenance of alignment. { 'vɒlv ,ɡaɪd }

valve head [MECH ENG] The disk part of a poppet valve that gives a tight closure on the valve seat. { 'vɒlv ,hed }

valve-in-head engine See overhead-valve engine. { 'vɒlv in 'hed ,en-jən }

valve lifter [MECH ENG] A device for opening the valve of a cylinder as in an internal combustion engine. { 'vɒlv ,lif-tər }

valve positioner [CONT SYS] A pneumatic servomechanism which is used as a component in process control systems to improve operating characteristics of valves by reducing hysteresis. Also known as pneumatic servo. { 'vɒlv pə'zɪʃən-ər }

valve seat [DES ENG] The circular metal ring on which the valve head of a poppet valve rests when closed. { 'vɒlv ,set }

valve stem [MECH ENG] The rod by means of which the disk or plug is moved to open and close a valve. { 'vɒlv ,stem }

valve train [MECH ENG] The valves and valve-operating mechanism for the control of fluid flow to and from a piston-cylinder machine, for example, steam, diesel, or gasoline engine. { 'vɒlv ,træn }

van der Waals surface tension formula [THERMO] An empirical formula for the dependence of the surface tension on temperature: $\gamma = Kp^{2/3}T^{1/2}(1 - T/T_c)^n$, where γ is the surface tension, T is the temperature, T_c and p_c are the critical temperature and pressure, K is a constant, and n is a constant equal to approximately 1.23. { 'væn dər ,vɒlz 'sər-fəs ,ten-ʃən ,fɔr-myə-lə }

Van Dorn sampler [ENG] A sediment sampler that consists of a Plexiglas cylinder closed at both ends by rubber force cups; in the armed position the cups are pulled outside the cylinder and restrained by a releasing mechanism, and after the sample is taken, a length of surgical rubber tubing connecting the cups is sufficiently prestressed to permit the force cups to retain the sample in the cylinder. { 'væn 'dɔrn ,səm-plər }

vane [MECH ENG] A flat or curved surface exposed to a flow of fluid so as to be forced to move or to rotate about an axis, to rechannel the flow, or to act as the impeller; for example, in a steam turbine, propeller fan, or hydraulic turbine. { 'væn }

vane anemometer [ENG] A portable instrument used to measure low wind speeds and airspeeds in large ducts; consists of a number of vanes radiating from a common shaft and set to rotate when facing the wind. { 'væn ən-ə'mē-məd-ər }

vane motor rotary actuator [MECH ENG] A type of rotary motor actuator which consists of a rotor with several spring-loaded sliding vanes in an elliptical chamber; hydraulic fluid enters the

chamber and forces the vanes moves to the outlets. { 'væn ɪ 'æk-ʃə,wād-ər }

vane-type instrument [ENG] A instrument utilizing the force of re fixed and movable magnetized force existing between a coil and shaped piece of soft iron, to move pointer. { 'væn ,tʉp ,ɪn-strə-mənt }

vapor [THERMO] A gas at a temperature above the critical temperature, so that it cannot be liquefied by compression, without liquefaction. { 'væ-pər }

vapor barrier [CIV ENG] A layer applied to the inner (warm) surface of a wall or floor to prevent absorption of moisture. { 'væ-pər ,bæ-ri-ər }

vapor-compression cycle [MECH ENG] A refrigeration cycle in which refrigerant is compressed in a machine which allows boiling (or vaporization) of liquid to pass through an expansion valve producing a cooling effect in the space followed by compression of the refrigerant. { 'væ-pər kəm'pres-ən ,saɪ-kəl }

vapor cycle [THERMO] A thermodynamic cycle operating as a heat engine or a refrigerator in which the working substance passes through the vapor state. { 'væ-pər ,saɪ-kəl }

vapor degreasing [ENG] A type of cleaning procedure for removing lightly attached solids; a solvent such as roethylene is boiled, and its vapor is condensed on the metal surface to be cleaned. { 'væ-pər ,degri'ziŋ ,si-səm }

vapor-filled thermometer [ENG] A thermometer filled with a liquid that expands or contracts in response to changes in temperature or contraction of the sealed chamber. { 'væ-pər ,fild 'θər-mi-ɪtər }

vaporimeter [ENG] An instrument used to measure a substance's vapor pressure or that of an alcoholic liquid, in order to determine its alcohol content. { 'væ-pər-ɪ-mi-ter ,væp-ə'ri-ʃən }

vaporization See volatilization. { 'væ-pər-ɪ-zə-ʃən }

vaporization coefficient [THERMO] The rate of vaporization of a substance at a given temperature and constant pressure to the rate of vaporization of the same substance at this temperature if every vapor molecule that was in the solid or liquid were to be vaporized. { 'væ-pər-ɪ-zə-ʃən ,kə-ə'fɪʃ-ənt }

vaporization cooling [ENG] Condensation of a nonflammable liquid such as alcohol or high dielectric liquid is flowed or sprayed over equipment in an enclosure which carries the heat to the enclosure walls, or heat exchanger. Also known as evaporative cooling. { 'væ-pər-ɪ-zə-ʃən ,kʉl-ɪŋ }

vaporizer [CHEM ENG] A piece of equipment in which a liquid is heated until it